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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/782,150	02/14/2001	Ralph E. Frazier	8686	2319

			EXAMINER
26884	7590	07/26/2005	YIGDALL, MICHAEL J

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ART UNIT	PAPER NUMBER
2192	

DATE MAILED: 07/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

<table>
<tr><td rowspan="2">Office Action Summary</td><td>Application No.</td><td>Applicant(s)</td></tr>
<tr><td>09/782,150</td><td>FRAZIER, RALPH E.</td></tr>
<tr><td></td><td>Examiner</td><td>Art Unit</td></tr>
<tr><td></td><td>Michael J. Yigdall</td><td>2192</td></tr>
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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>26 April 2005</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-10</u> is/are pending in the application.

     4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-10</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

     a)☐ All   b)☐ Some * c)☐ None of:

         1.☐ Certified copies of the priority documents have been received.

         2.☐ Certified copies of the priority documents have been received in Application No. _____.

         3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

     * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

1.   Applicant's amendment and response filed on April 26, 2005 has been fully considered.

Claims 1-10 are pending.

Response to Arguments

2.   Applicant's arguments have been fully considered but they are not persuasive.

With regard to claim 1, Applicant contends that Burgess does not teach that analysis is

performed by operating system software of the system for which the operating software

scheduling information has been generated (Applicant's remarks, page 7, last paragraph to page

8, second paragraph). Likewise, with regard to claim 6, Applicant contends that neither Eilert,

Burgess nor a combination thereof teaches sequences of instructions performing analysis of

operating software scheduling information being part of instructions forming operating system

software for which the operating software scheduling information has been generated

(Applicant's remarks, page 9, first paragraph).

However, as presented in the previous Office action, Eilert discloses monitoring

scheduling information (see, for example, column 10, lines 1-4), analyzing the scheduling

information and calculating performance indexes (see, for example, column 6, lines 34-43). The

monitoring and analysis is performed by the system goal driven performance controller 158

included in the system resource manager 118, which is a component of the operating system 102

(see, for example, column 6, lines 9-18) on the same computer system 100 for which the

scheduling information is generated (see, for example, FIG. 1).

Therefore, when the system of Eilert is supplemented with the event recording and

analysis features taught by Burgess, the analysis is performed by operating system software (i.e.,

operating system 102) of the system for which the operating software scheduling information has

been generated (i.e., computer system 100), as disclosed by Eilert. Accordingly, Eilert in view

of Burgess also discloses sequences of instructions performing analysis of operating software

scheduling information being part of instructions forming operating system software for which

the operating software scheduling information has been generated.

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

4.   Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No.

6,282,560 to Eilert et al. (art of record, "Eilert") in view of U.S. Pat. No. 5,796,633 to Burgess et

al. (art of record, "Burgess").

With respect to claim 1 (currently amended), Eilert discloses a computer implemented

method of controlling system performance (see, for example, column 1, lines 23-28).

Although Eilert discloses monitoring scheduling information (see, for example, column

10, lines 1-4), analyzing the scheduling information and calculating performance indexes (see,

for example, column 6, lines 34-43), Eilert does not expressly disclose the steps of:

(a) recording event information relating to operating software events as the events occur, in order to generate operating software program scheduling information relating to interactions between the operating system software and the programs and tasks managed by the operating system software, the event information including information relating to processor resource usage, priority and efficiency of operation of various applications managed by the operating system software; and

(b) analyzing the operating software program scheduling information in order to determine how system performance is affected by the operations of the applications being managed by the operating system software.

However, Burgess discloses monitoring operating system events (see, for example, column 4, lines 23-27) and recording associated information to a database (see, for example, column 4, lines 50-56), so that a user can analyze historical performance data and monitor usage trends (see, for example, column 2, lines 38-44). The information relates to interactions between the operating system and the programs and tasks managed by the operating system, such as processor resource usage and efficiency (see, for example, column 7, lines 20-33), as well as thread priority and switching (see, for example, column 7, lines 34-44).

Burgess further discloses that the information is analyzed to determine how system performance is affected, so as to generate alert messages when performance reaches a predetermined threshold (see, for example, column 6, lines 47-56). The messages may be used to adjust operating system parameters and improve performance (see, for example, column 7, lines 45-55 and column 8, lines 1-9).

It would have been obvious to one of ordinary skill in the art at the time the invention

was made to supplement the system of Eilert with the event recording features taught by

Burgess, so that users can track historical performance data and usage trends. Likewise, it would

have been obvious to one of ordinary skill in the art at the time the invention was made to

supplement the system of Eilert with the analysis features taught by Burgess, so that alerts can be

generated and subsequently used to improve performance.

Eilert also discloses the limitation wherein the analysis is performed by the operating

system software of the system for which the operating software program scheduling information

has been generated (see, for example, FIG. 1 and column 6, lines 9-18, which shows that the

analysis is performed by the system goal driven performance controller 158 included in the

system resource manager 118 of the operating system 102 on the computer system 100 for which

the scheduling information has been generated).

Eilert also discloses the step of:

(c) adjusting defined parameters to modify system performance (see, for example,

column 6, lines 34-43, which shows adjusting system resource controls to attain a level of

performance).

With respect to claim 2 (original), Eilert also discloses the limitation wherein the defined

parameters include at least one of scheduling priority, program termination, delayed restart, and

program load leveling (see, for example, column 10, lines 17-24, which shows dispatching

priority, i.e. scheduling priority, as an exemplary resource control parameter).

With respect to claim 3 (original), Eilert also discloses the limitation wherein the program

scheduling information includes at least one of a count of the number of program schedules, a

count of the number of program preempts, a count of the number of interrupts, a highest priority

attained, a lowest priority attained, a program identity, a length of run-time, a count of the

number of times in the idle loop, a count of the duration of the idle loop, a sequential record of

scheduled programs, a sequential record of priorities, a sequential record of events, a count of the

number of programs waiting to run per schedule time, and an identity of programs waiting to run

per schedule time (see, for example, column 7, lines 15-47, which shows identifying an

application, i.e. determining a program identity).

With respect to claim 4 (original), Eilert also discloses the limitation wherein said

analysis step includes determining at least one of a system processing capability, a number of

programs scheduled, a program run-time priority, a length of time each program executed, a

number of preemptions, a number of interrupts, and an amount of idle time (see, for example,

column 10, lines 47-52, which shows determining the amount of time a task should be made non-

dispatchable, i.e. the amount of idle time).

With respect to claim 5 (previously presented), Eilert also discloses monitoring operating

software scheduling information (see, for example, column 10, lines 1-4, which shows

monitoring system resource utilization, i.e. scheduling information).

With respect to claim 6 (currently amended), Eilert discloses a computer system for

capturing operating software scheduling information during execution of said operating software

(see, for example, column 8, lines 36-46, which shows the capture of real-time service data

during execution) comprising:

(a) a processor for receiving and transmitting data (see, for example, column 1, lines 23-

28, which shows a processor used for real-time data streams); and

(b) a memory coupled to the processor, the memory having stored therein sequences of

instructions which, when executed by the processor, cause the processor to adjust defined

parameters to modify system performance (see, for example, column 13, lines 46-53, which

shows computer readable program code, i.e. sequences of instructions, inherently stored in a

memory coupled to the processor, and column 6, lines 34-43, which shows adjusting system

resource controls to attain a level of performance).

Although Eilert discloses monitoring scheduling information (see, for example, column

10, lines 1-4), analyzing the scheduling information and calculating performance indexes (see,

for example, column 6, lines 34-43), Eilert does not expressly disclose the limitation wherein the

processor records operating software as the events occur, in order to generate operating software

program scheduling information relating to interactions between the operating system software

and the programs and tasks managed by the operating system software, the event information

including information relating to processor resource usage, priority and efficiency of operation of

various applications managed by the operating system software, and analyzes the operating

software scheduling information in order to determine how system performance is affected by

the operations of the applications being managed by the operating system software.

However, Burgess discloses monitoring operating system events (see, for example,

column 4, lines 23-27) and recording associated information to a database (see, for example,

column 4, lines 50-56), so that a user can analyze historical performance data and monitor usage

trends (see, for example, column 2, lines 38-44). The information relates to interactions between

the operating system and the programs and tasks managed by the operating system, such as

processor resource usage and efficiency (see, for example, column 7, lines 20-33), as well as

thread priority and switching (see, for example, column 7, lines 34-44).

Burgess further discloses that the information is analyzed to determine how system

performance is affected, so as to generate alert messages when performance reaches a

predetermined threshold (see, for example, column 6, lines 47-56). The messages may be used

to adjust operating system parameters and improve performance (see, for example, column 7,

lines 45-55 and column 8, lines 1-9).

It would have been obvious to one of ordinary skill in the art at the time the invention

was made to supplement the system of Eilert with the event recording features taught by

Burgess, so that users can track historical performance data and usage trends. Likewise, it would

have been obvious to one of ordinary skill in the art at the time the invention was made to

supplement the system of Eilert with the analysis features taught by Burgess, so that alerts can be

generated and subsequently used to improve performance.

Eilert also discloses the limitation wherein the sequences of instructions performing the

analysis are part of the instructions forming the operating system software for which the

operating software scheduling information has been generated, the sequences of instructions

stored within the memory including the sequences of instructions to adjust defined parameters to

modify system performance (see, for example, FIG. 1 and column 6, lines 9-18, which shows

that the analysis and adjusting is performed by the system goal driven performance controller

158 included in the system resource manager 118 of the operating system 102 on the computer

system 100 for which the scheduling information has been generated).

With respect to claim 7 (original), the limitations recited in the claim correspond to the

limitations recited in claim 5 (see the rejection of claim 5 above).

With respect to claim 8 (original), the limitations recited in the claim correspond to the

limitations recited in claim 2 (see the rejection of claim 2 above).

With respect to claim 9 (original), the limitations recited in the claim correspond to the

limitations recited in claim 3 (see the rejection of claim 3 above).

With respect to claim 10 (original), the limitations recited in the claim correspond to the

limitations recited in claim 4 (see the rejection of claim 4 above).

Conclusion

5.   Applicant's amendment necessitated the new ground(s) of rejection presented in this

Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this

final action.

6.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Michael J. Yigdall whose telephone number is (571) 272-3707.

The examiner can normally be reached on Monday through Friday from 7:30am to 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Tuan Q. Dam can be reached on (571) 272-3695. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private

PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

                                                        Michael J. Yigdall
                                      MY   Examiner
                                                        Art Unit 2192

mjy

                                                        WEI Y. ZHEN
                                                        PRIMARY EXAMINER